

## **ABSTRACT OF THE DISCLOSURE**

The present invention is for a charged dextran, preferably dextran sulfate, as an improved mucoactive agent which can be used to 5 improve viscoelasticity and clearance of respiratory tract mucus. The charged dextran can be used in the treatment of animals with impaired mucus clearance, mucus retention and/or mucus hypersecretion, such as cystic fibrosis, chronic bronchitis, bronchiectasis, bronchiolitis and bronchial asthma. Related methods of treatment and pharmaceutical 10 compositions, particularly aerosolized dextran sulfate compositions are encompassed within the scope of the invention.